UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

ECOLOGICAL SITE DESCRIPTION

ECOLOGICAL SITE CHARACTERISTICS

Site Type: Forest
Site ID: F042XA004NM
Site Name: Floodplain – Plains Riparian *Populus Fremontii – Salix (sp.)*
Major Land Resource Area and Common Resource Area MLRA 42 SD-1
Precipitation or Climate Zone: Warm desertic region 8-11" precipitation/year
Phase:

ORIGINAL SITE DESCRIPTION APPROVAL:

Site Date: June 6, 2002
Site Author: Steve Lacy
Site Approval:
Approval Date:

REVISIONS:

Revision Date:
Revisor:
Revision Approval:
Approval Date:
Revision Notes:

PHYSIOGRAPHIC FEATURES

Narrative:

The Floodplain – Plains riparian community is found along permanent streams and rivers from elevation of 3,000-7,000. These permanent waters are found in subresource areas WP-2, SD-1, SD-2, SD-3, CP-1, and CP-2.

LAND FORM:

1. floodplain
2. terrace
3.

ASPECT:

1.
2.
3.

	Minimum	Maximum
Elevation (feet)	5,000	5,500
Slope (percent)	1	4
Water Table Depth (inches)	48”	72”

Flooding:	Minimum	Maximum
Frequency	rare	
Duration		

Ponding:	Minimum	Maximum
Depth (inches)		
Frequency		
Duration		

Runoff Class:

Hydrologic Group B

CLIMATIC FEATURES

Narrative:

Warm desertic region, with an annual precipitation from 8-11”. Most precipitation received in the summer months. The average annual temperature is 72.1^{o} F for the high and 37.1^{0} F for the low. The average annual air temperature is 53^{0} F to 55^{0} F.

	Minimum	Maximum
Frost-free period (days):	160	185
Freeze-free period (days):		
Mean annual precipitation (inches):	8”	11”

Monthly moisture (inches) and temperature (^{0}F) distribution:

	Avg. Precip. In.	Avg. Snowfall Total	Temp. Min.	Temp. Max.
January	.45	2.1	18.8	49.3
February	.45	1.4	22.4	55.2
March	.55	0.8	27.9	62.6
April	.54	0.2	35.0	72.7
May	.61	0.0	42.9	81.2
June	.49	0.0	51.3	91.4
July	1.40	0.0	59.4	94.1
August	1.54	0.0	57.0	91.0
September	.92	0.0	48.6	84.8
October	.96	0.0	37.3	73.7
November	.44	0.5	25.7	59.4
December	.52	1.8	19.1	50.3

Climate Stations:

			Lat Long		Period		
Station ID	290903-5 (93)	Location	Bernalillo 3 SW	From:	1946	To:	1953
Station ID	290903-5 (94)	Location	Bernalillo 1 NNE	From:	1953	To:	1965
Station ID	290903-5 (95)	Location	Bernalillo 1 NNE	From:	1965	To:	1982
Station ID		Location		From:		To:	
Station ID		Location		From:		To:	

INFLUENCING WATER FEATURES

Narrative:

This area is located along the Rio Grande. It may be subject to brief periods of flooding from April to October although the occurrence is rare. There is a seasonal high water table from 48”-72”, which limits the effective rooting depth.

Wetland description:

System	Subsystem	Class

If Riverine Wetland System enter Rosgen Stream Type:
D-5 Channel Form, multi-channel, low relief alluvial valley.

REPRESENTATIVE SOIL FEATURES

Narrative:
The Gilco loam is a deep moderately well drained soil on a floodplain position. The soil permeability is moderately rapid. Available water capacity is high. Runoff is slow and the water erosion hazard is slight.

Parent Material Kind: mixed alluvium
Parent Material Origin: sedimentary/metamorphic/igneous mixed

Surface Texture:

1. brown loam 8" CL-Ml
2. brown loam, fine sandy loam, silt loam 8-60" SC-SM CL-ML
3.

Surface Texture Modifier:

1. none
2.
3.

Subsurface Texture Group:
Surface Fragments <=3" (% Cover):
Surface Fragments >3" (% Cover):
Subsurface Fragments <=3" (%Volume):
Subsurface Fragments >=3" (%Volume):

	Minimum		Maximum	
	Unit 1	Unit 2	Unit 1	Unit 2
Drainage Class:				
Permeability Class:	.6"/hr	.6"/hr	2.0"/hr	2.0"/hr
Depth (inches):	0.8	8.60	0.8	8.60
Electrical Conductivity (mmhos/cm):	0	0	4	4
Sodium Absorption Ratio:				
Soil Reaction (1:1 Water):	6.6	6.6	8.4	8.4
Soil Reaction (0.1M CaCl2):				
Available Water Capacity (inches):	.15	1.5	.17	.17
Calcium Carbonate Equivalent (percent):				

Soil survey associations:
This ecological site is associated with the map units and soil components in the following soil surveys. Future updates to this soil survey may affect these associations. For up-to-date associations between soil components and this ecological site, refer to NASIS. Associations between ecological sites and soil components are maintained in NASIS via the ecological site ID.

MAP UNIT NAME

Soil survey	Map unit symbol	Soil components
Sandoval County		

PLANT COMMUNITIES

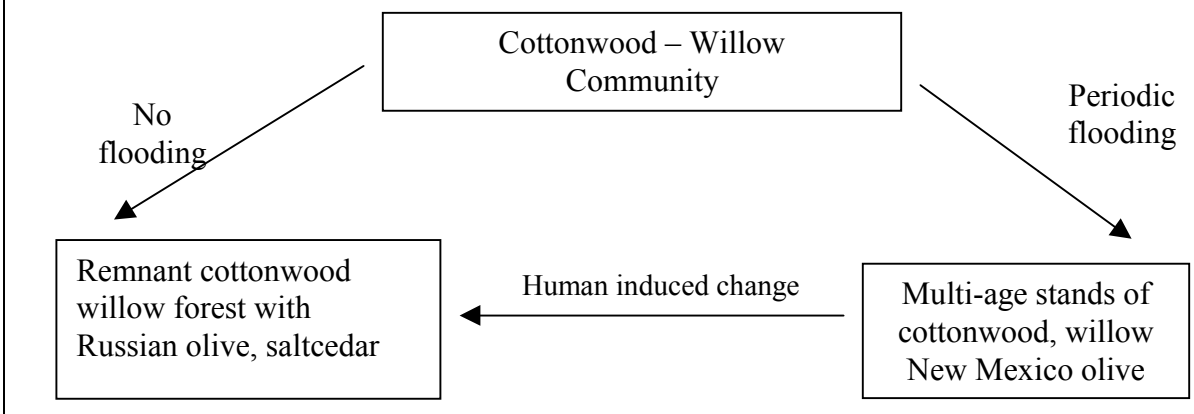
Ecological Dynamics of the Site:

Floodplain – plains riparian communities are established on moist, exposed mineral soils. These conditions developed as a result of periodic spring flooding and river channel migration.

After establishment, the community matures into a streamside forest that contains multi-age stands of RioGrande cottonwoods reaching 60-80' in height. Willows (*Salix sp*.) form dense understory stands. Over time, understory species such as New Mexico olive can be found as an understory shrub. It is generally multi-trunked and grows 10-12'.

Most floodplain-plains riparian communities have been adversely affected by flood control and the narrowing of the river corridor. Cottonwood and willow have been widely replaced by species not dependent on spring flooding to reproduce. Saltcedar and Russian olive are common invader species.

Plant Communities and Transitional Pathways (diagram)



Interpretive Plant Community: _____

Ground Cover and Structure:

Cover Type	Percent Ground Cover by Height Class (feet)								
	<.5	.5-1	>1-2	>2-4.5	>4.5-13	>13-40	>40-80	>80-120	>120
Grass/Grass Like									
Forb									
Shrub/Vine									
Tree									
Lichen									
Moss									
Litter									
Course Fragment									
Bare Ground									

Forest Overstory Composition:

The typical forest overstory composition of the historic **climax community**.

Common Name	**Scientific Name**	**Percent Composition (percent by frequency)**
Rio Grande cottonwood	*Populus fremontii*	
Total		

Forest Understory Composition:

The typical annual production of understory species to a height of 4.5 feet (excluding boles of trees) under low, high, and representative canopy covers.

		Annual Production Per Acre Percent and Pounds (air-dry weight)					
		Canopy Cover Percent					
		80		**90**		**100**	
Common Name	**Scientific Name**	%	lbs	%	lbs	%	lbs
Gooddings willow	*Salix gooddingii*						
New Mexico olive	*Forestiera neomexicana*						
Coyote willow	*Salix exigua*						
Total Annual Production							

Typical Climax Community:

Plant Community: (as it exists today)

Rio Grande cottonwood trees, large mature overstory with some regeneration. Understory has gooddings, willows and coyote willow. Some New Mexico olive. Also present are invader species of Russian olive and saltcedar.

Ground Cover and Structure:

	Percent Ground Cover by Height Class (feet)								
Cover Type	<.5	.5-1	>1-2	>2-4.5	>4.5-13	>13-40	>40-80	>80-120	>120
Grass/Grass Like									
Forb									
Shrub/Vine									
Tree									
Lichen									
Moss									
Litter									
Course Fragment									
Bare Ground									

Forest Overstory Composition: As it exists today.

The typical forest overstory composition of the historic climax community.

Common Name	Scientific Name	Percent Composition (percent by frequency)
Rio Grande cottonwood	*Populus fremontii*	
Russian olive	*Elaeagnus angustifolia*	
Total		

Forest Understory Composition:

The typical annual production of understory species to a height of 4.5 feet (excluding boles of trees) under low, high, and representative canopy covers.

		Annual Production Per Acre Percent and Pounds (air-dry weight)					
		Canopy Cover Percent					
		75		85		95	
Common Name	Scientific Name	%	lbs	%	lbs	%	lbs
Gooddings willow	*Salix goodingii*						
Coyote willow	*Salix exigua*						
New Mexico olive	*Forestiera neomexicana*						
Saltcedar	*Tamarix pentandra*						
Total Annual Production							

Plant Community: (as it exists today)

ECOLOGICAL SITE INTERPRETATIONS

Forest Site Productivity

Common Name	Scientific Name	Annual Productivity (per acre per year)						
		Site Index		Cubic Feet (CMAI)		Other Units		
		Low	High	Low	High	Low	High	Unit

Soil Survey Associations:

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Soil Survey	Map Unit Symbol	Map Unit Name Soil Components
Sandoval County		Gilco loam

ECOLOGICAL SITE INTERPRETATIONS

Animal Community:

Rabbits, raccoons, skunk rock squirrels, songbirds, hawks, ducks, and cranes.

Plant Preference by Animal Kind:

Animal Kind: _____

Animal Type: _____

Common Name	Scientific Name	Plant Part	Forage Preferences											
			J	F	M	A	M	J	J	A	S	O	N	D

Animal Kind: _____

Animal Type: _____

Common Name	Scientific Name	Plant Part	Forage Preferences											
			J	F	M	A	M	J	J	A	S	O	N	D

Hydrology Functions:

Flooding is very limited since the construction of Cochiti Dam. Little natural regeneration of the cottonwoods can occur.

Recreational Uses:

1. Hiking
2. Birdwatching
3. Picnics

Wood Products:

Other Products:

Other Information:

Supporting Information

Associated Sites:

Site Name	Site ID	Site Narrative

Similar Sites:

Site Name	Site ID	Site Narrative

Inventory Data References (narrative):

Inventory Data References:

Data Source	Number of Records	Sample Period	State	County

State Correlation:
This site has been correlated with the following sites: _____

Type Locality:
State: New Mexico
County: Sandoval
Latitude:
Longitude:
Township: T 13 N
Range: R 4 E
Section: 20

Is the type locality sensitive? Yes ☐ No ☐

General Legal Description: _____

Relationship to Other Established Classifications:

Other References: